

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named

Inventor: John Mark Sutton

Serial No.: 10/599,098

Examiner: To Be Assigned.

International

Filing Date: March 22, 2005

Group Art Unit: 1657

Title: BIOLOGICAL INDICATOR

Confirmation No.: 4054

INFORMATION DISCLOSURE STATEMENT

M.S. – Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with the provisions of 37 C.F.R. § 1.56, Applicants request that citation and examination of the references identified on the attached Form PTO-1449, required copies of which are enclosed herewith in accordance with 37 C.F.R. §1.98, be made during the course of examination of the above-referenced application for United States Letters Patent.

Respectfully submitted,



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Form PTO-1449 (Rev. 8-88)	Attorney Docket No. MSQ01-007-US	Serial No. 10/599,098
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	First Named Inventor John Mark Sutton	
	International Filing Date: March 22, 2005	Group: 1657

U.S. PATENT DOCUMENTS							
Examiner Initials*		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	Z1	4,584,272	04/1986	Imahori, et al.			
	Z2	4,608,335	08/1986	Fossati			
	Z3	2003/0162243	08/2003	Foltz, et al.			
	Z4	5,418,167	05/1995	Matner, et al.			

FOREIGN PATENT DOCUMENTS								
Examiner Initials*		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	Y1	WO 2004/003226	01/2004	WO				
	Y2	WO 00/46357	08/2000	WO				
	Y3	WO 02/053723	07/2002	WO				
	Y4	JP 57065184	04/1982	JP				
	Y5	WO 02/033056	04/2002	WO				

Examiner Initials*		OTHER ITEMS - NON PATENT LITERATURE DOCUMENTS	
		Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages	
	X1	Aflalo, C., et al., "Continuous monitoring of adenosine 5'-triphosphate in the microenvironment of immobilized enzymes by firefly luciferase", Biochemistry, vol. 26, pp. 3913-3920, (1987).	
	X2	Burdette, D.S., et al., "Effect of thermal and chemical denaturants on thermoanaerobacter ethanolicus secondary-alcohol dehydrogenase stability and activity", Enzyme and Microbial Technology, vol. 27, pp. 11-18, (2000).	
	X3	Cramer, A., et al., "Improved green fluorescent protein by molecular evolution using DNA shuffling", Nature Biotechnology, vol. 14, pp. 315-319, (1996).	
	X4	Criswell, A.R., et al., "Structures of thermophilic and mesophilic adenylate kinases from the genus methanococcus", J. Mol. Biology, vol. 330, pp. 1087-1099, (2003).	
	X5	Daniel, R.M., et al., "A correlation between protein thermostability and resistance to proteolysis", Biochem J., vol. 207, pp. 641-644, (1982).	
	X6	Gupta, M.N., "Thermostabilization of proteins", Biotechnology and Applied Biochemistry, vol. 14, pp. 1-11, (1991).	
	X7	Hayashi, T., et al., "Analyses of biochemical substances by the use of immobilized pyruvate kinase and lactate dehydrogenase", Rept. National Food Research Institute, no. 40, pp. 102-105, (1982).	
	X8	International Preliminary Report on Patentability for PCT application number PCT/GB2005/001056 dated June 13, 2006.	

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X9	International Search Report and Written Opinion for PCT application number PCT/GB2005/001056 dated September 12, 2005.
X10	Kawashima, K., "A method to prepare bead-shaped immobilized enzyme", Enz. Engineer, vol. 4, pp. 159-160, (1978).
X11	Klibanov, A.M., "Stabilization of enzymes against thermal inactivation", Advances in Applied Microbiology, vol. 29, pp. 1-28, (1983).
X12	Klibanov, A.M., "Enzyme stabilization by immobilization", Analytical Biochemistry, vol. 93, pp. 1-25, (1979).
X13	Liao, H.H., "Thermostable mutants of kanamycin nucleotidyltransferase are also more stable to proteinase K, urea, detergents, and water-miscible organic solvents", Enzyme Microb Technology, vol. 15, no. 4, pp. 286-292, (1993).
X14	Mannens, G., et al., "Purification and immobilization of acetate kinase from desulfovibrio vulgaris", Biotechnology Letters, vol. 10, no. 8, pp. 563-568, (1988).
X15	Melik-Nubarov, N.S., "Protein stabilization via hydrophilization: stabilization of α -chymotrypsin by reductive alkylation with glyoxylic acid", Biotechnology Letters, vol. 9, no. 10, pp. 725-730, (1987).
X16	Michel, P.E., et al., "A transient enzymatic inhibition as an efficient tool for the discriminating bioluminescent analysis of three adenylic nucleotides with a fiberoptic sensor based on a compartmentalized tri-enzymatic sensing layer", Analytica Chimica Acta, vol. 360, pp. 89-99, (1998).
X17	Nakajima, H., et al., "Continuous ATP regeneration process with stable acetate kinase", Journal of Applied Biochemistry, vol. 6, pp. 19-28, (1984).
X18	Rees, D.C., et al., "Some thermodynamic implications for the thermostability of proteins", Protein Science, vol. 10, pp. 1187-1194, (2001).
X19	Scandurra, R., et al., "Protein thermostability in extremophiles", Biochimie, vol. 80, pp. 933-941, (1998).
X20	Slegers, G., et al., "Co-immobilized pyruvate kinase and lactate dehydrogenase as recycling system for ATP", Enzyme Microb. Technology, vol. 8, pp. 153-156, (1986).
X21	Stemmer, W.P.C., "Rapid evolution of a protein in vitro by DNA shuffling", Nature, vol. 370, pp. 389-391, (1994).
X22	Taylor, D.M., "Resistance of transmissible spongiform encephalopathy agents to decontamination", Contrib. Microbiol., vol. 7, pp. 58-67, (2001).
X23	Taylor, D.M., "Principles and practice of disinfection, preservation and sterilization", Chapter 7, Transmissible degenerative encephalopathies: inactivation of the unconventional causal agents, Blackwell Scientific Publications, Oxford, (Russel, A.D., Hugo, W.B., and Ayliffe, G.A.J., eds), pp. 222-236, (1999).
X24	Taylor, D.M., et al., "Thermostability of mouse-passaged BSE and scrapie is independent of host PrP genotype: implications for the nature of the causal agents", Journal of General Virology, vol. 83, pp. 3199-3204, (2002).
X25	GB Search Report for GB application number GB0406427.5 dated May 26, 2004.
X26	GB Search Report for GB application number GB0406427.5 dated October 15, 2004.
X27	Vartanian, J-P., et al., "Hypermutagenic PCR involving all four transitions and a sizeable proportion of transversions", Nucleic Acids Research, vol. 24, no. 14, pp. 2627-2631, (1996).
X28	Vonrhein, C., et al., "The structure of a trimeric archaeal adenylate kinase", Journal of Molecular Biology, vol. 282, pp. 167-179, (1998).
X29	Zdanovsky, et al., "Simple and efficient method for heterologous expression of clostridial proteins", Applied and Environmental Microbiology, vol. 66, no. 8, pp. 3166-3173, (2000).

/Michelle Horning/

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